KING STREET METRO STATION/EISENHOWER AVENUE
SMALL AREA PLAN

ADOPTED 1992 MASTER PLAN

ALEXANDRIA, VIRGINIA

Amended 2/12/1994 Ordinance #3705
Amended 6/18/1994 Ordinance #3739
Amended 6/25/1996 Ordinance #3879
Amended 12/13/1997 Ordinance #3970
Amended 3/14/1998 Ordinance #3983
Amended 4/18/1998 Ordinance #3988
Amended 12/12/1998 Ordinance #4030
Amended 4/12/2003 Ordinance #4293

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The listing of City Officials and Staff from the original adopted version of this Small Area Plan does not reflect current appointments and therefore is not included in this online version.

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PURPOSE OF THE PLAN

The purpose of this document is to update the adopted 1974 Consolidated Master Plan as amended by the 1978 King Street Metro Station Area Plan for the King Street/Eisenhower Avenue Area and to adopt a 1989 King Street/Eisenhower Avenue Area Plan as part of the City's new Master Plan. The 1989 Plan, once adopted, will serve as the basis for future City Council policy initiatives and actions affecting land use, zoning, capital improvements and programs in the King Street/Eisenhower Area.

ORGANIZATION AND CONTENTS

The King Street/Eisenhower Avenue Area Plan is organized into two sections: Background and Issues and Plan Recommendations. The first section reviews and analyzes existing conditions and trends in the study area including physical conditions, demographics, land use, zoning, economic development activities and trends, transportation and urban design. This section also retraces past City policies including adopted plans, rezonings, resolutions and capital improvement programs. Based on this analysis this section identifies issues which need to be addressed in the plan for the area.

The second section lists the goals, objectives and specific recommendations on land use, zoning, transportation and urban design as derived from the analysis.

PLANNING PROCESS

The final draft of this plan will be sent to the Master Plan Task Force, the King Street Metro Station Area Task Force and the Eisenhower Avenue Metro Station Area Task Force for review and to the Planning Commission and City Council for review and adoption. Once approved, the plan will be referred to the Zoning Task Force for input into the City wide zoning code revision effort. Based on the approved plan and revised zoning code, the City will proceed with implementing appropriate rezonings in the area.

DESCRIPTION OF AREA

The King Street/Eisenhower Avenue Area is located in the southern section of the City. The area is bounded generally by Bluestone Road on the west, Interstate 95 (Capital Beltway) on the south and West Street and Hooff's Run on the east. Excludes the area bounded by Holland Lane, the Capital Beltway, Telegraph Road and Duke Street/Metro tracks included in the Eisenhower East small area plan. The northern boundary is composed of the RF&P Railroad tracks, Callahan Drive and Cameron Street (Map 1).

King Street Subarea

The King Street Metro Station subarea consists of approximately 41 acres excluding streets located between Callahan Drive, Cameron Street, West Street and north of Duke Street. The subarea is predominantly composed of commercial office buildings located along Diagonal Road, King Street, Duke Street and Daingerfield Road. Residential development within the defined subarea is limited to a 96 unit midrise apartment building on Prince Street, older townhouse residential along Harvard and Peyton Streets and a mix of old and new townhouses along West and Prince Streets.

The area is mostly surrounded by established, built up residential and commercial areas. To the east are the Old and Historic Alexandria District and the Central Business District which extend into the subarea as far as Peyton Street. To the north is the Parker Gray District and the Braddock Road Metro Station Area.

The RF&P railroad tracks, Amtrak Station and Callahan Drive define the western boundary. Abutting the railroad tracks to the west is the single family community of Rosemont. The only King Street Station subarea border which does not contain residential uses is to the south along Duke Street.

The King Street Metro area was once a location for low scaled warehousing, auto dealerships, grocery stores and freestanding retail shops. Much of the land was used for surface parking lots.

The absence of development in the King Street area was probably due to the periodic flooding of Hooff's Run and to the high water table. Its remote location at the western edge of the downtown area and its proximity to railroad tracks may have also contributed to the lack of interest in this area for more intense development.

However, the channelization of Hooff's Run under what is now Daingerfield Road and the advent of Metrorail service in 1983 greatly accelerated investment in the area. Since King Street Station Building I opened in 1983, there has been a steady stream of construction activity; the King Street Metro Station area is developing into a dense office/retail and hotel center focused on the Metro Station.

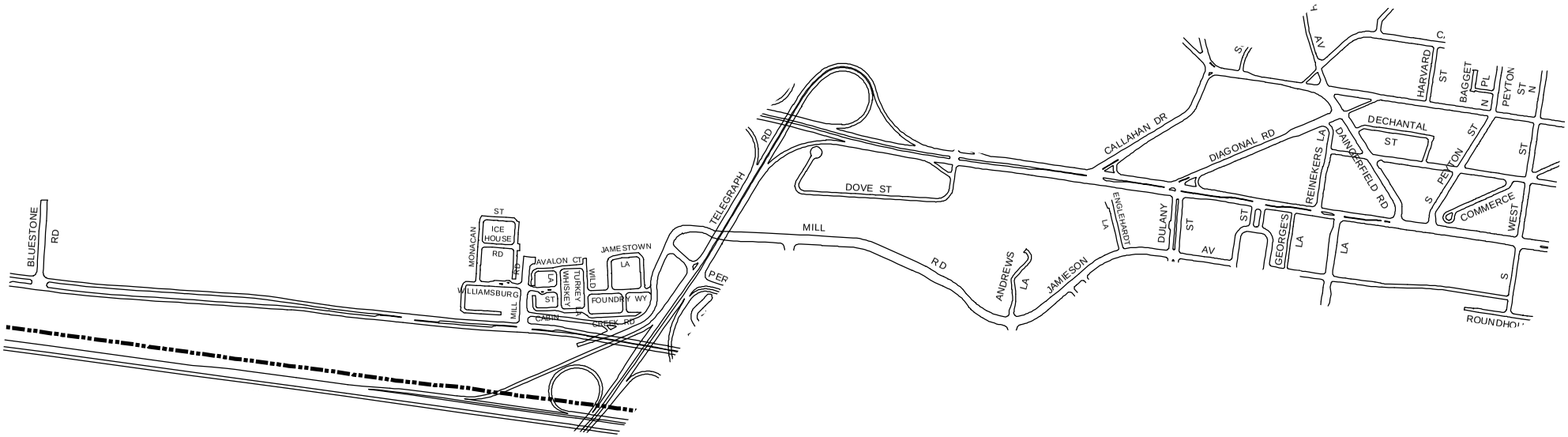
Eisenhower Avenue Subarea

The Eisenhower Avenue subarea is located south of Duke Street and is bound by Telegraph Road to the east, the Capital Beltway to the south and Bluestone Road to the west.

For most of its recent history, the Eisenhower Avenue area was in the Cameron Run flood plain and therefore subject to periodic flooding. As recently as the 1940's part of this marsh area could be navigated by small boats. Through the 1960's and the 1970's the marsh areas were used as a landfill bringing elevations up to 15 to 20 feet above sea level.

Map 1

1988 Study Area



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However, with the Cameron Run flood control and channelization project completed during the late 1960's and early 1970's, the area became suitable for commercial development. Commercial development, consisting of lower scale multi-building commercial projects such as the Alexandria Tech Center and GT Metro Center, were to follow during the late 1970's and 1980's.

Public agencies also found the Eisenhower Avenue area suitable for development. The Washington Metropolitan Area Transit Authority built a metrorail service and inspection yard and a facility for its revenue collection operations south of S. Quaker Lane and east of Bluestone Road.

Proximity and exposure to the Beltway, the availability of large vacant sites, buildings with ample parking and less expensive rents compared to downtown Alexandria locations, are all factors which have attracted relatively low density, back office space, flex space, government office users and warehousing to the Eisenhower Avenue area.

What has not as yet been attracted to the area, however, is a mix of uses. There are no residential or retail uses near the station and few, if any Class A office buildings. In fact, so far, the metro station has generated little if any development that takes advantage of the Eisenhower Avenue station.

What has deterred metro related development in the Eisenhower station area is its physical isolation from the rest of the City. Most of this subarea is located in the Cameron Run Valley which slopes down from Duke Street and is far removed from the nearest residential areas. This isolation is compounded by limited north/south vehicular access, by the presence of railroad trackage and by unattractive if not noxious industrial uses such as the Alexandria Scrap Yard.

Yet conditions are changing which may reduce Eisenhower Avenue's isolation from nearby developed areas and create opportunities for metro related, mixed use and higher quality development.

DEMOGRAPHICS

Population

There are few people who live in the study area. The 1989 permanent, full time residential population of the King Street/Eisenhower Area is estimated to be approximately 209 persons (Table 1). This area has experienced very little residential growth in the past ten years except for a 96 unit mid rise structure on Prince Street and some infill townhouses on Prince and West Streets.

The only real population growth has been the direct result of the construction of institutional uses in the area. It is estimated that there are approximately 667 persons living in institutional facilities in the area, which include residents of the City's jail and the City's shelter on Mill Road.

Table 1

ESTIMATED POPULATION
King Street/Eisenhower Avenue Area

Population		1970[2]	1980[2]	1989
	Residential	315	195	209[3]
	Institutional	–	–	667[1]
Housing Units		126	102	125[4]

[1] Average number of residents in City institutional facilities: Public Safety = 469; Christ House (131 S. West Street) = 16; City Shelter = 66; Carpenters House = 88; and the Alcohol and Substance Abuse Center = 28.

[2] Source: U.S. Census

[3] Source: Planning Department based on COG Round IV Forecast.

[4] Source: Department of Planning and Community Development

Employment

There are an estimated 12,980 persons that are employed within the King Street/Eisenhower Avenue Area in 1990, not including self employed persons (Table 2). This represents approximately 14% of a total estimated 92,000 jobs in the City. Almost 9,600 persons, representing 74 percent of the work force in the study area, are employed in the Eisenhower Avenue Metro Station subarea. Some 5630 Department of Defense employees work in the Hoffman Buildings constructed in the late 1960's and early 1970's.

As shown in the table, employment in the planning area has markedly increased reflecting substantial commercial development activity in the study area over the past 15 years.

Table 2

ESTIMATED EMPLOYMENT[1]
King Street/Eisenhower Avenue Area

Area	1975	1980	1985	1990
King/Duke St.	18	59	1414	3403
Eisenhower Ave.	5764	6085	8518	9578
Total Employment	5782	6144	9931	12980

[1] Source: Department of Planning and Community Development

EXISTING LAND USE (Map 2)

The King Street/Eisenhower Avenue Area consists of approximately 424 acres. About 15 percent (66.9 acres) is in street and alley right-of-ways, leaving 357.4 acres of land subject to development.

Residential Land Use

Less than one percent of the study area or 2.44 acres is used for residential purposes. Of 125 dwelling units located in the area in 1989, 96 are within a midrise condominium development on Prince street which was built in 1982. The remaining units are older rowhouses and townhouses.

Table 3

EXISTING LAND USE[1]
King Street/Eisenhower Avenue Area

Land Use	Square feet	Acres	Percent
Residential	106,147	2.44	.68
Commercial	4,282,043	98.30	27.51
Industrial	1,963,155	45.07	12.61
Park or open space	325,533	7.47	2.09
Institutional	617,435	14.17	3.97

Utilities	4,478,468	102.81	28.77
Vacant	3,794,227	87.11	24.37
Totals	15,567,008[2]	357.37	100.00

[1] The King Street/Eisenhower Avenue Area consists of 18,479,499 square feet or 424.23 acres including public streets, alleys and other right-of-ways.

[2] The total amount of land area not in right of way that is subject to land use and zoning controls.

Commercial Land Use

Commercial land uses comprise 98.3 acres or approximately 27.5% of the study area. Commercial uses near the King Street Metro Station are heavily concentrated across from the station on Diagonal Road and along King Street and Duke Street.

There are two types of commercial developments in the King Street Metro Station subarea. The first type consists of major building complexes, such as the King Street Station and King Street MetroPlace developments. These projects are designed for large, single or multi-tenant users, are approximately 77 feet in height and have densities ranging from 2.5 to 3.0 Floor Area Ratios (FAR) with structured or underground parking. These projects are part of multi-use developments which include hotel and first floor retail uses.

The second type is infill commercial developments designed for small to medium sized single tenants and national associations. These buildings are located further from the transit station and represent smaller scaled single or multi-building projects from 3 to 5 stories in height.

Map 2 - Existing Land Use

This map not yet available in online version.

There are approximately 1.2 million square feet of commercial/office development in the King Street Metro Station subarea which are completed or are under construction.

Commercial development near the Eisenhower Avenue Station is more dispersed and less physically oriented to the Metro Station. The most prominent buildings are the Hoffman complex. These buildings are located on Eisenhower Avenue and on Stovall Street just northwest of the Metro station and consist of two buildings which total 935,841 net square feet and range in height from 120 to 150 feet. These buildings are surrounded by 3400 surface parking spaces accommodated on some 27 acres of land. Part of the Hoffman Complex includes an eleven story, 101,000 square foot hotel.

The other prominent commercial structure in this subarea is the American Trucking Association Building on Mill Road near the Capital Beltway. This 7 story building contains a net 171,000 square feet and is served by above grade structured parking.

The remaining commercial/office development is comprised of low scale office complexes such as the Alexandria Tech Center and the GT Metro Center. The ATC consists of four, three story office buildings with 268,000 square feet of space and a hotel containing a total of 98,242 square feet. The GT Metro Center is a combination of office and warehousing/commercial space consisting of 145,000 square feet of commercial/office space and 107,000 square feet of warehouse/commercial space.

There are approximately 2 million square feet of office development built in the Eisenhower Avenue subarea.

Utilities and Transportation Land Uses

Transportation land use constitutes the largest amount of land area within the King Street/Eisenhower Avenue Area, covering 102.8 acres or 28.8 percent of the total land area. Most of this land area contains the property and right-of-ways for the Metro service and inspection yard at Eisenhower Avenue and Bluestone Road and the Metro stations at King Street and Eisenhower Avenue. Other properties that are used for transportation purposes are the Amtrak's Union Station on King Street and Callahan Drive and the Norfolk-Southern Railroad yard.

Industrial Land Uses

Approximately 45.1 acres or 12.6 percent of the land area in the King Street/Eisenhower Avenue area is used for industrial purposes. These industrial uses are concentrated on Eisenhower Avenue between Telegraph Road and Hooff's Run and include the Alexandria Scrap Yard, whose lease expires in 1992, and the Curtis Lumber and Plywood Company, whose lease expires in 1995. Other smaller industrial uses include the Virginia Concrete operation, a mini-storage facility and a warehouse/retail/office complex on Hooff's Run Drive.

Institutional Land Uses

Institutional uses account for almost four (4) percent (14.2 acres) of the land area in the King Street/Eisenhower Avenue Area. The major institutional uses are the 182,200 square foot Public Safety Center, constructed in 1987; and the City's 25,000 square foot Homeless Shelter and Substance Abuse Center, constructed in 1988. Other institutional uses in the area are the Black Baptist Cemetery located on Holland Lane and two churches located on King at Peyton Street and Duke at West Street.

Recreation Land Use and Open Space

Only about 2.1 percent (7.5 acres) of the land area is used as open space. The study area does not contain parks, fields or active recreational facilities. Most of the open space consists of grassed or treed areas along the Cameron Run and Hooff's Run embankments. The embankment along Cameron Run has been designated as the Cameron Run Greenway and is a part of the City's open space inventory.

Vacant Land

The King Street/Eisenhower Avenue Area contains approximately 87.1 acres of vacant land. This represents 24.4 percent of the developable land area. Almost all of the vacant land in this area is located within the Eisenhower Avenue corridor.

EXISTING ZONING (Map 3)

Industrial Zoning

Excluding right-of-ways for streets and alleys, 203.3 acres or 56.9 percent of the King Street/Eisenhower Avenue Area is zoned for industrial use. Most of this industrially zoned property consisting of 58.8 percent (181.56 acres) of the area is zoned I-2. The I-2 zone allows the heavy industrial uses such as railroad yards, warehouses and truck terminals, but also allows high density commercial development at a 3.0 FAR. All of the I-2 zoned land in this area is located in the Eisenhower Avenue subarea.

An additional 21.7 acres, 6.1 percent of the area, is zoned I-1. The I-1 zone permits light industrial uses and professional office buildings at a 2.5 FAR.

Commercial Zoning

Commercial zoning, predominately C-3, covers 28.7 acres (8.1 percent of the total land area). The C-3 zone generally permits professional office buildings and commercial retail at a 3.0 FAR and residential development at 54.45 dwelling units per acre. All of the new construction that has

occurred around the King Street Metro Station was done on sites with C-3 zoning. All of the C-3 zoned properties are located north of Duke Street between West Street and Diagonal Road.

Mixed Use Zoning

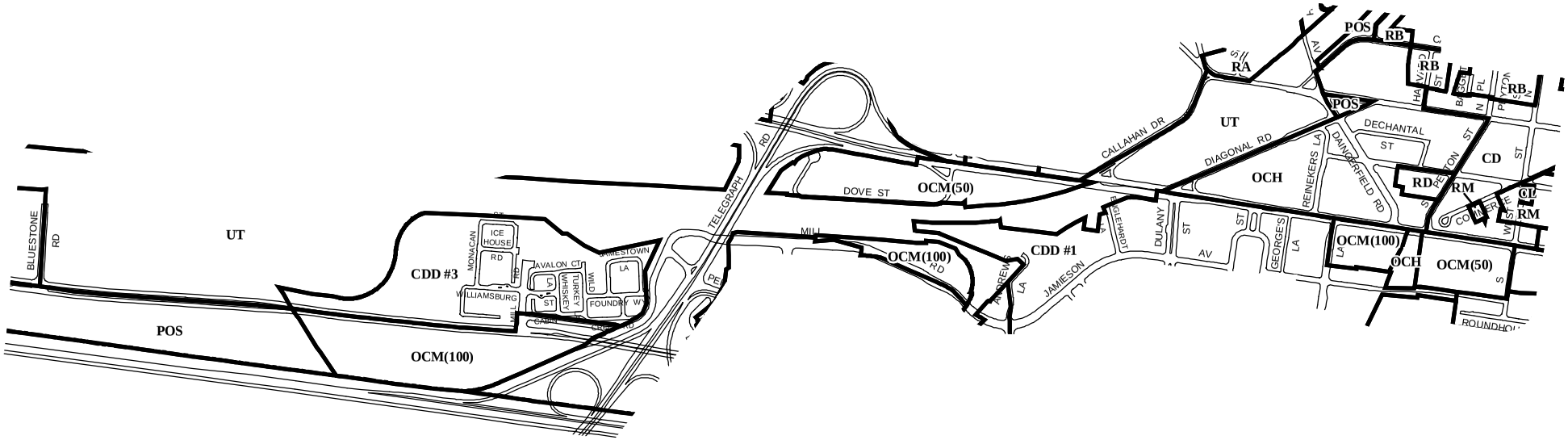
Approximately 91.7 acres or 24.7 percent of the area is zoned M-1 or M-3. The M-1 zone was designed to encourage mixed commercial and residential development near the King Street Metro Station. The zone allows a 3.0 Floor Area Ratio for commercial development and up to 85 dwelling units per acre.

Only one 4.4 acre site on the south side of Duke Street is zoned M-1. Since developers have been primarily interested in commercial development of the King Street area and since the C-3 zone allowed the same 3.0 FAR as the M-1 zone, there has been little incentive to apply for M-1 rezoning to take advantage of its residential density bonus.

The M-3 zone was developed for sites around the Eisenhower Metro station and has been applied to 87.3 acres of land along Eisenhower Avenue between Telegraph and Mill Roads. The M-3 zone was also designed to encourage mixed use commercial and residential development. The zone allows a 3.5 FAR for office development and up to a 6.0 FAR provided that a portion of the development is residential. The zone also allows up to a 345 foot building height with the provision of residential uses. Although developable sites have been rezoned to M-3, no development has occurred on these sites based on the M-3 zoning.

The CO mixed use zone covers 25.5 acres (7.1 percent of the total land area). Like the metro zones, the CO zone was developed to encourage a mix of uses at higher densities. All of the CO zoned properties in this area are located in two clusters on Eisenhower Avenue.

Map 3
Existing Zoning



Zoning Description

CD - Commercial downtown zone

CDD#1 - Coordinated development district #1

CDD#3 - Coordinated development district #3

CRMU/L - Commercial residential mixed use (low) zone

OC - Office commercial zone

OCH - Office commercial medium zone

OCM(100) - Office commercial medium (100) zone

OCM(50) - Office commercial medium zone

POS - Public open space

R 5 - Residential single family zone, 5,000 square foot lot

RA - Residential multi-family zone

RB - Residential townhouse zone

RD - Minimum lot size 1 acre

RM - Residential townhouse zone

UT - Utility and transportation zone

Amended 11/13/99
Ordinance #4068

Amended 6/18/93
Ordinance #3739

Amended 6/25/96
Ordinance #3879

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The CO zone allows a 2.0 FAR by right and additional FAR under the CO special use permit provisions to encourage mixed use development. None of the sites zoned C0 has developed under the SUP mixed use provisions of the zoning code. The Alexandria Tech Center site is being developed under the by right provisions of the CO zone for office development.

Table 4

EXISTING ZONING[1]
King Street/Eisenhower Avenue Area

Zone		Square Feet	Acres	Percent
Residential	R-5	277,034	6.36	1.78
	RM	30,141	0.69	0.19
	RD	39,152	0.90	0.25
Commercial	C-2	13,482	0.31	0.09
	C-3	1,248,234	28.66	8.02
Industrial	I-1	945,958	21.72	6.08
	I-2	7,909,065	181.56	50.80
Mixed Use	CO	1,109,597	25.47	7.13
Metro	M-1	190,687	4.38	1.23
	M-2	3,803,658	87.32	24.43
Total		15,567,007[2]	357.37	100.00

[1] The King Street/Eisenhower Avenue Area consists of 18,479,499 square feet or 424.23 acres including public streets, alleys and other right-of-ways.

[2] The total amount of land area that is subject to land use and zoning controls.

Residential Zoning

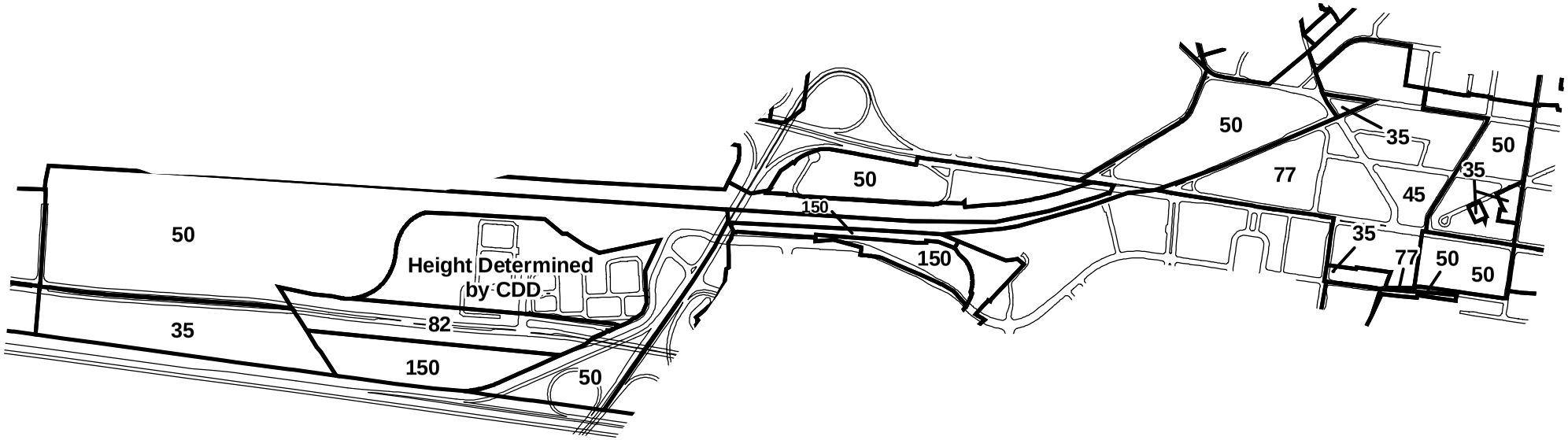
Only 8 acres (2.2 percent) of land within the King Street Eisenhower Avenue area have residential zoning, and only 1.6 of these acres are actually used residentially. The largest residentially zoned site, with R-5 single family zoning, is the Amtrak Union Station. Properties zoned for residential and developed for residential are located in three clusters, on Prince Street, Commerce Street and South West Street. The property on Prince Street is zoned RD and contains a 96 unit mid rise residential building. The properties on Commerce Street and South West Street are zoned RM and contain rowhouses or townhouses.

HEIGHT LIMITS (Map 4)

In the City, heights are regulated by both zoning and height districts. There are three height districts within the King Street/Eisenhower Avenue area which supplement the height restrictions of zoning in the area. Both the Cameron Street height district and the Old and Historic Alexandria District restrict development to 50 feet. Together, these two height districts cover most of the parcels north of Duke Street as far west as Peyton Street on the south side of King Street and Harvard Street on the north side of King Street.

Map 4

Existing Height Limits



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The King Street Metro Area height district restricts heights to 77-82 feet and covers most of the remaining land in the King Street area; it generally extends from King Street to the north to the rear property lines of Duke Street on the south, between S. Peyton Street to the east and Callahan Drive on the west.

While height districts generally limit development heights in the King Street portion of the study area to 50 and 77 feet, there are no height districts in the Eisenhower Avenue section of the study area.

The zoning in the Eisenhower area generally allows heights up to 150 feet. Under certain conditions, properties that are located outside of specific height districts can be approved to allow heights that are greater than what the zoning would normally allow by right. With a Special Use Permit and approval by City Council the CO zone would allow structures greater than 150 feet.

A Special Use Permit would also permit properties zoned I-1 and I-2 to allow heights up to 150 feet if the property is less than 5 acres in size and up to 200 feet if the property is larger than 5 acres. The M-3 zone would allow structures up to 345 feet in height with a Special Use Permit provided that residential uses are included in the project.

ECONOMIC ACTIVITY AND DEVELOPMENT TRENDS

Overall, the King Street/Eisenhower Avenue Area has undergone a dramatic transformation brought about by the onset of Metrorail service in 1983 and by substantial redevelopment activity over the past 8 years. As shown in the table below, prior to the opening of the King and Eisenhower Avenue metro stations in Alexandria, there was only 1.5 million square feet of office development, mostly in the Hoffman Complex. Since 1983 there has been 1.83 million square feet of additional office construction activity or 260,000 square feet constructed per year.

Table 5
OFFICE DEVELOPMENT 1975-1990
(Cumulative Square Feet)
King Street/Eisenhower Avenue Area

Subarea	1975	1980	1983	1985	1990
King Street	5,020	16,546	32,946	392,708	1,232,152
Eisenhower	976,185	1,065,546	1,324,779	1,738,047	2,031,890
Total	981,185	1,082,092	1,076,571	2,270,854	3,264,042

Most of the Metro related development activity has been concentrated around the King Street Metro Station area. Since 1983, some 1.1 million square feet of office development either has been completed or is under construction. Over the next five to ten years it is projected that the King Street station subarea will add another 950,000 square feet of office space at which point the King Street area will have achieved buildout. Almost all of this projected space is either under construction or has approved site plans.

The largest development in the area is the Oliver T. Carr Company King Street Station project located on Diagonal Road and Duke Street. When completed, the project will contain 536,000 net square feet of office space, 67,000 net square feet of retail space, 25,000 square feet of restaurant space and a 155,000 square foot hotel on a six acre site across from the Metro Station.

Another prominent development parcel near the King Street station is the old Reed Theatre site located between Commonwealth Avenue, King Street and Cameron Street. Owned by the Dominion Companies, the plan for this 4.30 acre parcel includes a 178 room hotel and up to 400,000 square feet of office and commercial retail space. Phase I of this project, including 80,000 square feet of office space in four buildings, is nearing completion.

There has been less Metro related development activity around the Eisenhower Avenue Metro Station subarea. Since the construction of the Hoffman Buildings, the area has experienced an additional 707,000 square feet of office development including the Eisenhower Center, Tech Center and GT Metro Center projects and the American Trucking Association building.

The type of development activity in the Eisenhower Avenue area, however, has not been limited to office uses. The Metro Service & Inspection Yard was constructed on a 15.7 acre site at Bluestone Road and Eisenhower Avenue. This facility includes six buildings with 268,000 square feet of space.

The 182,000 square foot Public Safety facility was constructed on Mill Road on a 8.8 acre site to house the City jail and police headquarters. The City's Homeless Shelter and Substance Abuse Center was constructed further north along Mill Road.

In addition, there has been 54,000 square feet of warehouse mini-storage space and 107,000 square feet of warehouse/commercial space constructed.

Future Development Potential

As the King Street Station area approaches buildout the Eisenhower Avenue area becomes the focus for examining future development potentials and their impacts. Development which has occurred over the past 15 years may be only a short prelude to substantial potential development which could occur over the next 20 years.

This analysis examines future development potential from several perspectives. First, known projects are identified as an indicator of development interest and intentions in the area. These

projects have approval, are pending review or have been announced as active developments planned for the near future. Second, the analysis looks at the supply of land and existing zoning to determine the theoretical remaining development potential of the area. Third, the analysis examines development potential in terms of market constraints.

Pending Development Proposals

Map 5 shows development proposals which have been recently approved, are pending approval or have been announced.

Map 5 - Major Vacant and Developable Sites

This map not yet available in online version.

Cameron Center

The Cameron Center site is 22.19 acres, zoned CO commercial, located on Eisenhower Avenue just west of Telegraph Road. The Simpson Development Co. is planning ultimately to construct 1.7 million square feet of office space, 150,000 square feet of retail space and a 300 room hotel. The site has approval for a 120,000 square foot office building.

Alexandria Tech Center

This is an 11.56 acre site located on the south side of Eisenhower Avenue opposite the Cameron Center site. The ATC has over 373,000 square feet of office space approved and 263,000 square feet of office space built.

Foundry Tract

This is a 7.2 acre former steel foundry site located between the Cameron Center property and Telegraph Road. Previous plans submitted by the Walt Robbins Company in 1985 included 585,000 square feet of office space housed in four buildings and a 300 room hotel.

Pending development proposals would add at least 13.4 million square feet of office space to the 3.2 million square feet of commercial development in the King Street/Eisenhower Avenue area completed or under construction.

Table 6

PENDING DEVELOPMENT
King Street/Eisenhower Avenue Study Area

Project	Land Area (acres)	Office (millions of sq.ft.)	Residential (number of units)	Retail (thousands of sq.ft.)	Hotel (no. of rooms)
CNS	76.5	4.2	1886	375	400
Hoffman	40.7	6.6	1730	162	1280
Cameron Center	22.2	1.7	0	150	300
Mill Race	3.1	0	510	22	0
Tech Center	11.6	0.1	0	0	0
Eisenhower Plaza	2.4	0.3	0	31	0
Foundry	7.2	0.6	0	0	300
Total	152.1	13.4	2396	740	1880

Zoning Potential

The amount of commercial development which has been built, approved, considered or announced in the study area is 13.6 million square feet. The amount of commercial development theoretically allowed by the current zoning on sites in Valley portion of the study area plus the CNS site is 26,000,000 square feet.

There is, therefore, a marked disparity between what developers have built and have announced they wish to build and what the current zoning allows. Even greater is the gap between current zoning allowances and reasonable market expectations over the next 20 years.

Market Forecasts

In July, 1988 the City commissioned a report prepared by Hammer, Siler George and Associates to forecast future office development over the next 17 years (1988 - 2005). The report concluded that office demand in the City would range from 900,000 - 1,000,000 square feet per year up to 1995 but would taper to 600,000 - 750,000 square feet per year between 1995 - 2005.

Overall, the report states that projected office construction is likely to range from 12 - 14 million square feet of space over the 17 year period or from 700,000 to 800,000 square feet of space per year. This projection predicts a slowdown in the pace of office construction which the City had experienced within the last five years when the City absorbed 5.7 million square feet of commercial office space or 1.1 million square feet per year.

The market analysis has several implications relative to the King Street/Eisenhower Avenue study area. First, it is evident that the study area, especially the large underdeveloped sites, is overzoned relative to the amount of commercial development which can reasonably be captured, not just for the area, but for the entire City.

The largely undeveloped eastern portion of the Valley is zoned for 26 million square feet of office development whereas the entire City is projected to absorb only 13.6 million square feet over the next twenty years.

Moreover, pending development plans include some 13.4 million square feet of office development whereas the allocation projects only 6.0 million square feet of additional office development for the study area over the next 20 years.

TRANSPORTATION

The King Street/Eisenhower Avenue Area is accessible to the Beltway (I-95) and is served by several major arterials including Telegraph Road, Eisenhower Avenue, Duke Street and King Street. The

study area is also accessible by bus and rail transit, is served by the Huntington Metroline via the King Street and Eisenhower Avenue Metro stations, and will be served by the Springfield Metroline and possibly by commuter rail.

Nevertheless, access to the study area is severely constrained. North-south street movement within the eastern Valley is limited to Holland Lane and to Telegraph Road. Importantly, Telegraph Road provides the only connection within the study area to the Beltway.

East - west movement is limited to Eisenhower Avenue and to Duke Street. There are only two connections between these arterials within the study area, at Holland Lane and at Telegraph Road. King Street, Commonwealth Avenue and Russell Road are all major streets which funnel into narrow, constricted railroad underpasses which become points of congestion.

Compounding these limitations, is heavy, peak period regionally oriented traffic which is part of the traffic watershed flowing north/south through the eastern portion of the City destined to Washington, D.C. and to Arlington County employment centers. Increasingly, traffic is also destined to Alexandria work places.

The result of a limited street system trying to accommodate regional and local traffic demands has been increased congestion affecting the arterial street system and Alexandria neighborhoods

It is against this background that the prospect of development within the Cameron Run Valley has been discussed, evaluated and debated over the past 20 years

How much development can the eastern portion of the Cameron Valley absorb and how much traffic can the street system accommodate? What improvements are needed to make the street system work and how will all of this affect neighborhoods?

This Plan addresses these questions and issues using a computerized traffic model. The model, using City and Council of Governments (COG) data, provides a comprehensive tool to analyze the impacts of local and regional traffic on the City's street system.

The City has also retained the transportation consulting firm of Frederic R. Harris and Assoc. to assist staff in this effort. This section will refer to the Harris Report which provides the basic transportation analysis contained in the Plan.

The transportation analysis section describes the 1974 Major Thoroughfare Plan for the area, the existing street system, the transit facilities serving the King study area and the major findings of previous Cameron Valley transportation studies. The section then explains the methodology and findings of the Harris report.

1974 Major Thoroughfare Plan

The 1974 Major Thoroughfare Plan for the King Street/Eisenhower Avenue area is shown on Map 6 and described below.

King Street Subarea

The only streets designated as arterials in the 1974 Major Thoroughfare Plan in the King Street area were Duke Street and the small section of King Street between Cameron Street and Diagonal Road. The rest of King Street was designated as a primary collector, while Prince and Cameron Streets were designated as residential collectors. Both the Duke street overpass and King Street underpass at the RF&P railroad tracks were designated for study.

Eisenhower Avenue Subarea

Within the Eisenhower Avenue subarea, two roadways were shown as expressways: the Capital beltway along the southern edge of the study area, and Telegraph Road. Duke Street was the only existing arterial, the planned Eisenhower Avenue extension through the Valley and over Telegraph Road was shown as a proposed arterial. The only other roadways in the 1974 Plan were the Mill Road/Pershing Avenue/Stovall Street connections between Eisenhower Avenue and Telegraph Road, which were shown as primary collectors. The Plan also called for a study to determine the best locations for a Duke Street/Eisenhower Avenue connector to the Valley west of Telegraph Road.

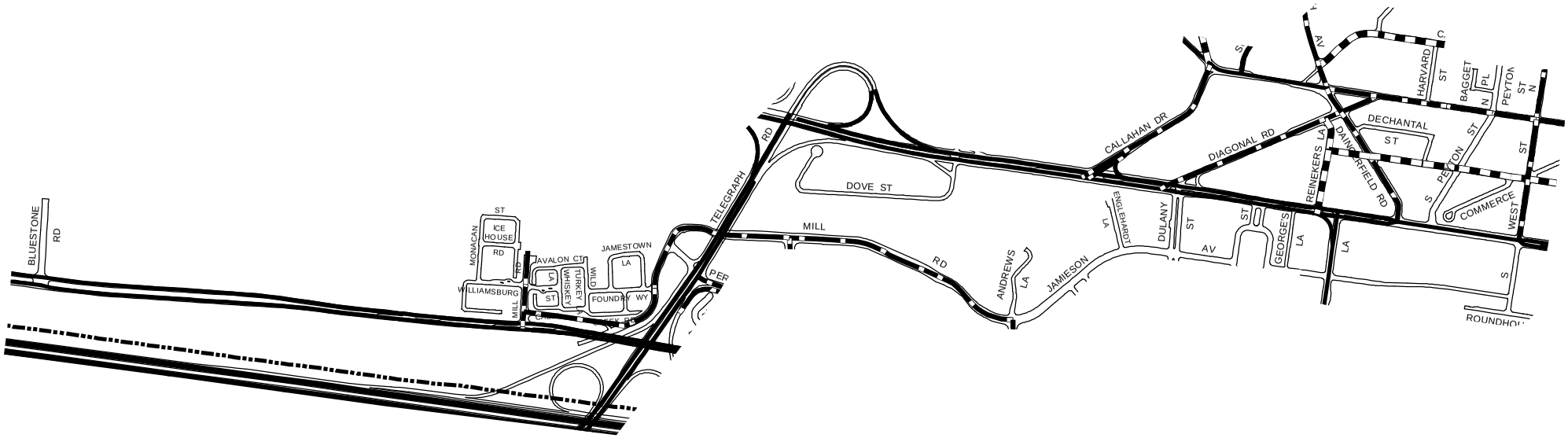
Intersection Levels of Service

One primary measure of existing traffic conditions is the level of service achieved at specific intersections. "Level of Service" is a concept used by traffic engineers to convey different levels of congestion and delay as arranged on a scale of A to F. In an urban area, level of service E at an intersection during the peak hour (the hour of greatest traffic demand during the morning or afternoon) reflects a condition where all of the traffic demand desiring to cross an intersection during an hour is accommodated. In this sense, the intersection is at capacity; demand fills the intersection during the entire one hour.

Level of Service F is a condition where an intersection cannot accommodate all of the demand during a one hour period. The result of Level of Service F conditions (LOS F) is delays, congestion and extension of the peak hour for longer periods during the morning or afternoon. LOS F describes a condition where demand exceeds the one hour capacity of the intersection.

Map 6

1974 Major Thoroughfare Plan



KING STREET METRO/EISENHOWER AVENUE

Street Classification

- Expressway
- Arterial
- Primary Collector
- Residential Collector
- City Boundary

Using counts contained in the 1988 CNS Traffic Impact Study, the following were calculated to be the existing levels of service at intersections providing access into or located within the area.

As shown, two critical intersections are already operating beyond their capacities during one or both peak hours: Duke/Diagonal and Van Dorn/Eisenhower. Telegraph/Pershing-northbound is at the minimum acceptable level of service. Otherwise, these intersections were operating below their capacity in 1987.

Table 7

INTERSECTION LEVELS OF SERVICE
King Street/Eisenhower Avenue Area

	Level of Service	
Intersection	A.M.	P.M.
Duke/Quaker	A	C
Duke/Callahan	B	C
Duke/Diagonal	F	F
Duke/Reinekers	B	A
Duke/Daingerfield	A	A
Duke/Henry	A	D
Duke/Patrick	B	A
Duke/Washington	C	C
King/Russell	C	C
King/Commonwealth	A	A
Van Dorn/Eisenhower	F	F
Telegraph/Pershing-north	E	E
Telegraph/Pershing-south	D	D

Source: CNS Project TIS submitted to Oliver Carr Company by Gorove/Slade Assoc., July 1989.

Street Capacity

Even though most intersections in the King Street/Eisenhower Avenue study area were operating, overall, below capacity in 1987, many of the key streets providing access into and out of the area were over capacity in the peak direction. Duke Street, Route 1 northbound and Telegraph Road, three of the four access points from the south and west, are over capacity today and traffic often experiences delays on these streets in the peak direction. Those streets with the most unused capacity generally provide access from the north, i.e. Route 1 southbound from the north. The existing regional land use pattern generates this demand for access from the south and west.

Although forecasts (COG Round IV) indicate more suburban to suburban travel, there will also be increased traffic from the south and west which will continue to impact the City.

Existing Transit Systems

Metrorail

As shown on Map 7, there are two metro station located within the King Street/Eisenhower Avenue Area, only one-half mile apart: the King Street Station and the Eisenhower Avenue Station. Both the King Street and Eisenhower stations are currently served by the Huntington line. Upon completion of the Van Dorn metro station, service will be extended south to Van Dorn via the King Street station and eventually will extend to Springfield.

Map 7-Transit Service
This map not yet available in online version.

Pedestrian Access to the Metro Stations

A 1987 study of Metro ridership conducted by JHK and Associates showed that there is a strong relationship between the location of development and Metro usage; offices located closer to the metro station have a higher percent of transit users than those buildings located further away. While other factors certainly help determine transit usage, distance between the office and the metro station was one of the most important factors.

Map 8 shows distances around the two Metro stations and shows that over half of the area is located within a reasonable walking distance of a Metro station. Only two areas: the sites west of Telegraph Road, and the sites east of Hooff's Run Drive, are located more than 2000 feet from a metro station. In the JHK study, for suburban locations, transit usage at office developments located more than 2000 feet from the metro had dropped to less than half of what it was at offices located nearer the metro station.

Commuter Rail

The proposed Northern Virginia Commuter Rail is expected to link Fredericksburg, Manassas and points north to Alexandria, Arlington and D.C.. One of the transfer points for commuter rail is planned to be at Union Station, on Callahan Drive just west of the railroad tracks. Union Station will be connected via an underground tunnel to the King Street Metro Station, providing a convenient transfer point and also providing convenient access into the King Street area for commuter rail users.

Bus

Bus service within the Valley is limited. Currently, two Metrobus lines provide service on Eisenhower Avenue: the #14A bus connects the S&I yards on Eisenhower Avenue to the Eisenhower Avenue Metro Station, and the #7 bus provides service between the Eisenhower Metro Station and the western end of the City. Metrobus line #29 runs along Duke Street, connecting to the Pentagon, Old Town and Annandale via Duke Street. Within the King Street area, one additional metrobus line, #28, provides service between Old Town and Tyson's Corner, via King Street.

In addition to Metrobus, three of the four Alexandria DASH lines provide service between the King Street Metro station and most parts of the City. DASH expects to extend its service to the Eisenhower Avenue corridor in the latter half of 1990. Initially, this line is expected to provide service between the Eisenhower Avenue Metro Station, the new Van Dorn Metro Station and the west end of the City.

The Fairfax County Fairfax Connector bus service, linking Springfield and Old Town Alexandria, also provides bus service into the area, stopping at both metro stations.

Improved bus service will be a critical element to be included in all transportation management plans within the study area.

Cameron Run Valley Transportation Studies

Over the years, either the City or private developers have conducted studies of the Cameron Run Valley to assess the impact of future development on the existing road network and to identify what road improvements would be needed to accommodate what levels of development.

Although the focus and methodology of each of these studies may have differed, they consistently show that the Cameron Run Valley can only accommodate modest growth without major improvements to the road system.

Map 8-Walking Distances to Metro Stations

This map not yet available in online version.

JHK Cameron Valley Study

The 1981 JHK study found that 4.27 million square feet of office space could be built in the Valley while maintaining a level of service D on the street system. The study found that this level of service could be accommodated only if the Clermont connector and interchange and the Bluestone connection to Wheeler Avenue were built.

TAMS Study of the Clermont Interchange

The 1983 TAMS study of the Clermont interchange provided no quantification of the traffic levels supportable in the Valley. However, the study did find that constructing the Clermont interchange would improve conditions on Duke Street and Telegraph Road while worsening Eisenhower Avenue conditions. Since Duke Street and Telegraph Road were and are already highly congested, this study, like the 1981 JHK study, essentially found that the Clermont interchange was necessary to support additional development and to maintain or create acceptable levels of service on the nearby streets.

Barton Aschman's Buchanon Radnor Study

The 1987 Barton-Aschman study was focused on a proposed 900,000 square foot office project on the 20 acre Buchanon Radnor site near Bluestone Road. The study concluded that this level of development could be accommodated. However, even this modest level of development would require construction of the Clermont interchange.

Frederic R. Harris Traffic Study of Eisenhower/King Street Area

In 1989, the City hired Frederic R. Harris to prepare a transportation study of the King Street/Eisenhower Avenue study area in conjunction with the development of this small area plan. Harris used output from the City's traffic model to analyze the A.M. peak traffic impacts of four different development scenarios for the Valley.

Table 8

LAND USE ASSUMPTIONS (1990-2010)
FREDERIC R. HARRIS STUDY SCENARIOS
King Street/Eisenhower Avenue Traffic Analysis

	Eisenhower Avenue Area		King Street Area		Remainder of City	
	Office	Res.	Office	Res.	Office	Res.
Scenario One	0	0	0	0	0	0
Scenario Two	0.9	0	1.0	0	7.4	8000
Scenario Three	6.0	1885	1.0	0	7.4	8000
Scenario Four	9.3	10785	1.0	0	7.4	8000

Office=Millions of Square Feet
Res.=Residential=Number of Dwelling Units

The four land use scenarios tested were based on Washington Metropolitan Council of Governments Round IV Cooperative Forecasts and Planning Department forecasts for the year 2010. As shown in Table 10, each scenario assumed the same level of City growth over the next 20 years; the scenarios differ as to how much growth occurs in the study area.

The first land use scenario essentially tests a hypothetical condition where no growth occurs in the City but regional growth outside of Alexandria continues over the next 20 years. This scenario tries to isolate and to identify the impact of regional traffic on the City's future traffic problems.

Scenario Two tests a minimum level of growth within the Study and reflects mostly projects which are underway.

Scenario Three tests the impact of the CNS project which would add over 6 million square feet of development.

Scenario Four, which includes substantial growth within the study area, tests maximum development rights under a possible formula for mixed use zoning which would allow up to a 3.0 FAR, split between office and residential uses, within the Valley portion of the study area.

These four land use scenarios were tested against a street network which included 4 major Alexandria improvements:

* A Beltway connector road located between the Telegraph and Route I interchanges.

* A flyover ramp from Telegraph Road northbound and the outer loop of the Beltway into the Cameron Run Valley at Eisenhower Avenue and Stovall.

* The Clermont interchange connecting to Eisenhower Avenue.

* The Duke Street widening between Diagonal Road and Henry Street.

Figure 1 shows the 4 major Alexandria road improvements in the 2010 street network. The street network also included all regional improvements in the WMCOG 2010 model and other improvements included in the 2010 Northern Virginia Subregional Plan.

The Harris study identified congested street segments for each of the scenarios and analyzed the effect of each of the development levels on 23 selected intersections within and around the King Street/Eisenhower Avenue study area. The study then tested various recommended street improvements to determine their affect on projected congestion.

Findings

Scenario One - Impact of Regional Growth (No City Growth)

The Harris study found that by the year 2010, 8 of the 23 intersections studied would be handling more traffic than could be accommodated (LOS E or worse), even if no growth beyond 1985 levels occurred in the City. All but one of these over-capacity intersections were located on Duke Street and Eisenhower Avenue, which would be the two most congested streets in this Scenario. Traffic would increase notably on Holland Lane, and Commonwealth Avenue and Russell Road would also experience an increase in congestion under Scenario One. Van Dorn Street would become extremely congested in the northbound direction, between the Beltway interchange and Stevenson Road (Figure 2).

Figure 1 - Planned Road Improvements Included in Scenarios 1,2,3 and 4

Figure 2 - Scenario 1: No Growth in City/2010 Growth in Region

Table 9

LEVEL OF SERVICE AT SELECTED INTERSECTIONS FOR MODEL SCENARIOS
King Street/Eisenhower Avenue Traffic Analysis

	--- Scenario ---					
	1	2	3	4	3X*	4X*
Duke/Elizabeth	A	A	**F**	**F**	**F**	**F**
Duke/Holland	**F**	**F**	**F**	**F**	A	C
Duke/Diagonal	B	E	E	**F**	D	**F**
Mill/Pershing	A	A	A	A	A	A
Eisenhower/Holland	C	C	C	C	A	A
Duke/Reinekers	D	**F**	D	**F**	C	C
Eisenhower/Mill	A	A	A	B	B	C
Eisenhower/E. Mill	**F**	**F**	**F**	**F**	**F**	**F**
Duke/Washington	**F**	E	D	D	E	E
Duke/Patrick	**F**	**F**	**F**	**F**	**F**	**F**
Mill/Stovall	A	A	A	A	A	A
Eisenhower/Stovall	**F**	**F**	**F**	**F**	**F**	**F**
Duke/Henry	A	B	A	B	A	A
Pershing/Stovall	A	A	A	A	A	A
Duke/Callahan	**F**	**F**	**F**	**F**	**F**	**F**
King/Callahan	**F**	**F**	**F**	**F**	**F**	**F**
Telegraph/Pershing	E	E	D	**F**	D	E
Duke/N. Quaker	C	D	**F**	**F**	E	**F**
Eisenhower/Clermont	A	B	E	**F**	D	E
Van Dorn/Eisenhower	**F**	**F**	**F**	**F**	**F**	**F**
King/Commonwealth	C	D	**F**	**F**	D	**F**
Duke/Taylor Run	E	**F**	**F**	**F**	E	**F**
N. Quaker/Trinity	B	C	B	E	C	E

* Additional road improvements added to network

Source: Frederic R. Harris analysis of King Street/Eisenhower Avenue Traffic based on City of Alexandria Traffic Model outputs

Scenario Two - Impact of Minimum Growth in the Study Area

This scenario adds 1.9 million square feet of commercial development in the study area and 7.4 million square feet of commercial development in the remainder of the City. Relative to the No City Growth scenario, the addition of 9.3 million square feet of development Citywide would cause only one more intersection to operate above capacity. Only Van Dorn Street southbound between Edsall Road and Pickett Street and part of Eisenhower Avenue east of Telegraph Road would be markedly over capacity (Figure 3).

Scenario Three - Impact of Moderate Growth within the Study Area

This scenario adds 5.1 million square feet of commercial office development and 1885 residential units within the study area. All of this incremental development reflects the CNS project and the development of a Oliver T. Carr owned site on Mill Road. This additional development results in two more intersections operate at level of service "F". The most significant increases in congestion occur within the eastern end of Cameron Run Valley on Eisenhower Avenue, Mill Road, Pershing Avenue and the Beltway connector-distributor road. Congestion also increases on some streets in the King Street Metro area on the southbound segment of Quaker Lane just north of Duke Street (Figure 4).

Figure 3 - Scenario 2: Minimal Growth in E. Valley/2010 Growth in Region

Scenario Four - Impact of Intense Development in the Study Area

This scenario adds 3.3 million square feet of office development and 8,904 residential units above Scenario Three. Scenario Four results in significant congestion throughout the study area. Five more intersections are operating at level of service "F" than in the previous scenario; in total, 15 of the 23 intersections would be operating above capacity. Congestion increases markedly within the King Street area and also increases west of the railroad tracks on Russell Road, Commonwealth Avenue and Callahan Drive (Figure 5).

After analyzing the impacts of the four different land use scenarios on a base 2010 street network, the Harris study tested the impacts of additional roadway improvements on congestion in the City. Five major improvements, shown on Figure 6, were tested for Scenarios Three and Four:

* Construction of the Clermont Connector
* Construction of the Bluestone Connector
* Widening of Van Dorn Street between the Beltway and Eisenhower Avenue
* Construction of the Daingerfield Road/Wolfe Street extension
* Widening of Eisenhower Avenue between Telegraph Road and Holland Lane

The effect of these street improvements on traffic conditions in Scenario 3 are dramatic. (Figure 7 and Figure 8). Of the 23 intersections analyzed in this study, 15 improved when these road improvements were added, including four intersections which improved from level of service F. Three intersections did get worse, but none deteriorated to level of service F. The addition of these improvements relieves almost all of the congestion within the Eisenhower Valley on Eisenhower Avenue, Mill Road, Pershing Avenue and Holland Lane. Congestion along Duke Street between Callahan Drive and Quaker Lane is alleviated by these improvements. Traffic does increase on one segment of northbound Quaker Lane, but operating conditions do not deteriorate below level of service "E." These improvements will impact Jordan Street which will experience substantially more traffic. However, Jordan Street will not operate below level of service "D" except for one short segment. The Bluestone connector becomes congested, attracting more traffic than its capacity; the Clermont connector introduces congestion on Clermont only south of Eisenhower Avenue.

For Scenario Four, the effects of the 5 improvements are also marked, although substantial congestion still remains because of the high development levels in this scenario (Figure 9 and Figure 10). Of the 23 intersections studied; 17 get better with the improvements, including 4 that improve from level of service F. Two intersections get worse, but they do not exceed capacity. Improvement occurs within the Eisenhower Valley on Eisenhower Avenue, Mill Road and Holland Lane. Congestion also decreases west of the railroad tracks on Russell Road and Commonwealth Avenue. Bluestone becomes congested, as does a section of Quaker Lane in the southbound direction.

Several important conclusions can be made from the Harris traffic analysis. These are described below.

At a minimum, three basic road improvements are needed in the valley:

- the Clermont interchange,
- the Beltway Connector Road
- and the Telegraph Road flyover ramp.

Even with these improvements, congestion will occur and additional improvements will be needed.

Figure 4 - Scenario 3: Market "Plus" Growth in E. Valley/2010 Growth in Region

Figure 5 - Scenario 4: Extensive Mixed Use Growth in E. Valley/2010 Growth in Region

Figure 6 - Proposed Road Improvements Included in Scenarios 3 and 4

Figure 7 - Scenario 3 With Proposed Road Improvements

Figure 8 - Impact of Proposed Improvements in Scenario 3

Figure 9 - Scenario 4 With Proposed Improvements

Figure 10 - Impact of Proposed Road Improvements on Scenario 4

A second level of improvements; including

- connectors between Eisenhower Avenue and Duke Street,
- widening of the eastern end of Eisenhower Avenue,
- widening of Van Dorn Street south of Eisenhower Avenue
- and the Wolfe Street/Daingerfield Road extension;

would help to accommodate development in the Valley with limited impacts on other parts of the City.

With these additional improvements a modest level of development, 6 million square feet of office development and 1885 dwelling units, could be accommodated. Even with these improvements, there would be congestion on the street system, but almost all of the worst intersections and street segments would be located either within the Valley, on Duke Street between Telegraph Road and Holland Lane, or at locations which even today are highly congested.

* The development of 6.0 million square feet of office in the study area begins to push the limits of tolerable road conditions, even with all possible road improvements in place.

Unless other major road improvements can be identified, no additional traffic can be accommodated on the City's streets without major impacts given current travel behavior.

However, additional levels of development could be accommodated if development generated fewer than expected vehicles; that is, if vigorous transportation demand management programs reduced single occupant vehicles and increased carpool, vanpool and transit use, a proportionate amount of additional development could be accommodated.

Conclusions

To realize additional development in the King Street/Eisenhower Avenue area without unduly impacting residential areas, the City needs to consider, as a package, the following approaches;

1. Coordinate the provision of additional roadway improvements with the phasing of development. This will ensure that development proceeds in concert with added traffic capacity.

2. Require a Transportation Management Association (TMA) within the study area. This can provide a comprehensive and effective approach towards planning and administering TMPs within the area.

3. Create a Transportation Improvement District to finance road and transit improvements in the area and to finance the TMA.

Street Improvements

Based on the Harris Report findings the following road improvements have been identified as needed to accommodate growth within the study area (see Map 9).

Map 9 - Planned and Proposed Road Improvements

This map not yet available in online version.

1. Telegraph Road Improvements plus Flyover Ramp

Telegraph Road serves as both a major traffic portal into the City and a major portal into the study area. By serving this dual role, it has become one of the most congested City streets. Traffic back-ups and long delays are common on Telegraph Road, particularly in the evening peak hours. Currently, most backups are a result of problems at the Woodrow Wilson bridge or in Fairfax County at the Telegraph/Huntington and Telegraph/King's Highway intersections. There are also major problems generated by the configuration of the intersection of Telegraph Road with Mill Road and Pershing Avenue, which provides a major point of access into the eastern portion of the Cameron Run Valley.

Two types of actions to improve Telegraph Road are needed. First, both the Clermont Interchange and the Beltway Connector/ Distributor Road will need to be constructed to relieve the pressures on Telegraph Road. Second, the Telegraph Road interchange needs to be improved to provide easier access into the eastern portion of the Cameron Run Valley. The City should pursue a study to improve Telegraph Road in conjunction with the Woodrow Wilson Bridge Study.

One improvement to Telegraph Road which should be considered, is the construction of a ramp from northbound Telegraph road just south of the I-95 interchange which would connect to Stovall Street. This ramp would allow northbound Telegraph Road traffic destined to the Cameron Run Valley to use the ramp instead of Pershing Avenue to access valley development. This ramp would also be used by eastbound Beltway traffic to access the Valley.

The effect of this improvement is to allow traffic to access the eastern portion of the Cameron Run without being mired in congestion at Telegraph and Pershing Avenue. The Harris study showed that the Beltway flyover from the Telegraph Road ramp is one of three essential improvements needed in the Valley.

2. Beltway Connector Road

The traffic analysis shows that additional Beltway access into the study area is needed to relieve Telegraph Road. One of the major roadway improvements proposed in conjunction with the CNS project is construction of a connector road parallel to the Beltway which would connect to Mill Road and allow westbound traffic on the Beltway to enter the eastern Cameron Run Valley area. The Connector Road would also allow westbound traffic to exit from the Eisenhower Avenue area but only to go towards Fairfax County. Traffic originating from Maryland, therefore, would still have to use Telegraph to go eastbound and back across the Woodrow Wilson Bridge.

3. Clermont Interchange

Although located outside of the study area, the proposed Clermont interchange with the Beltway will greatly improve access into the entire valley. This project is in the State's Five Year Plan;

an EIS is being prepared. The planned interchange, which connects into the valley via Eisenhower Avenue, was identified in almost all studies, including the Harris study, as an essential improvement.

4. Holland Lane/Daingerfield Road-Wolfe Street Extension

Another road improvement proposed by the CNS developers is the widening of Holland Lane to four lanes. The intersection of Holland Lane with Duke street is a problematic one, primarily because of the offset between Holland Lane and Reinekers Lane at Duke Street. This offset produces functional and operational problems. Although widening Holland Lane is needed, other road improvements will also be required to make the Duke Street/ Holland Lane intersection work.

One possible improvement, tested in the Harris Study, is the extension of Daingerfield Road south of Duke Street to Wolfe Street which would be constructed to Holland Lane. Street. Right turns could be prohibited from Holland Lane to Duke Street. Instead, traffic going east or north from Holland would take the Wolfe Street/Daingerfield Road extension. The City's traffic model shows that this improvement would help to relieve congestion along Holland Lane. Eventually, Wolfe Street could be extended to S. West Street or S. Payne Street.

5. Eisenhower Avenue Widening East of Telegraph Road

Eisenhower Avenue is currently two lanes in each direction. As development occurs in the Valley, the Harris study has shown that congestion will reach unacceptable levels on the eastern portion of the Avenue. Widening Eisenhower Avenue to three lanes in each direction between Mill Road and Telegraph Road would provide the capacity needed to avoid congestion.

6. Mill Road Realignment and Extension

Mill Road's meandering alignment limits its traffic carrying capacity poorly serves potential development sites. Realigning Mill Road would remove its awkward curves and improve its traffic carrying capacity. Also, extending Mill Road westward through the two large parcels west of Telegraph Road would provide additional access to these sites, which are now served only by Eisenhower Avenue.

Transportation Management Association

A coordinated approach is needed to implement Transportation Management Plans. Additional development will be able to be accommodated in the Valley proportionate to increased transit usage and carpooling and by people living and working in the Valley. To the extent these shifts in transportation mode occur, there will be less need for additional road improvements beyond what has been identified and less political pressure to curtail development in the future.

A Transportation Management Association to include all development parcels in the study area

is likely to result in better managed, better financed and more effective transportation management plan programs.

Transportation Improvement District

The local share of transportation improvements within the study area should be funded through a Transportation Improvement District (TID) which assesses developers the cost of improvements based on square footage of development. The State has adopted legislation, effective July 1, 1990, which will allow the City to establish a TID to finance Cameron Run Valley improvements. To create this district, the City must adopt a transportation improvement plan for the area and include this plan as part of the City's Capital Improvements Program.

URBAN DESIGN ANALYSIS

The urban design section examines the physical conditions of the King/Eisenhower Avenue area in terms of the opportunities and constraints for mixed use, transit oriented development. The analysis forms the basis for a land use concept and for possible development guidelines regarding the height, bulk and siting of buildings. Also, the analysis examines more specific urban design issues related to public improvements such as street, pedestrian and open space systems.

The focus of this analysis is the largely undeveloped Eisenhower Avenue Metro station area where there is a need to set development guidelines and to coordinate both private and public improvement activity. The King Street Metro area is not included in the general analysis since redevelopment is near completion and the character of development largely established.

Eisenhower Avenue Area

As stated earlier the Eisenhower Avenue area has not produced mixed use residential, retail, office and hotel development. This analysis explores the feasibility of encouraging coordinated mixed use development around the metro station and examines the various development sites in terms of their suitability for different uses, building heights and densities. The analysis also examines traffic, pedestrian and open space systems to determine how best to accommodate increased demands for access, circulation, open space and recreational needs created by new development and how to best link potential development sites into a coherent whole.

Constraints and Influences

Map 10 summarizes the major constraints and influences affecting prospective mixed use development in the Eisenhower Avenue area. These constraints include those physical factors, natural and man-made, which exert a negative influence on the suitability of mixed use development including residential uses.

Physical Barriers

The area is characterized by large scale public facilities, railroad trackage, major arterials, an interchange with its associated ramp system, a major freeway, Metrorail trackage serving two Metro lines and a Service/Inspection Yard and a drainage system which cuts through portions of the area. All of these factors tend to create physical barriers which isolate the area from the rest of the City, separate potential development sites, make pedestrian access difficult and make some sites unsuitable or less attractive for certain land uses such as residential.

Soils and Drainage

Another development constraint is drainage and soil conditions. Cameron Run, Hooff's Run, Mill Race and several other open channels flow near or through the area en route to Hunting Creek and eventually to the Potomac River.

The drainage area, with its high water table and periodic backup and flooding, combined with the fact that parts of this area have been used as landfill and contain poor soil, can adversely affect development, making construction unbuildable or very costly.

In other cases, the high water table and poor soil conditions may make underground parking unfeasible or limited to one level. As such, large developments are likely to include sizable above grade parking structures which can be dominant visual elements of any building design.

Image and Built Form

Another development constraint is the negative image associated with the Eisenhower Avenue area. It is this negative image which causes some to dismiss the possibility that this area could attract residential development.

This image reflects the isolation of this area from the rest of the City and the area's industrial character--its railroad facilities, scrap yard and concrete mixing plant. This image stems also from the area's lack of development, the presence of large tracts of bare, desolate looking land.

However, another factor which makes it difficult to envision the area as a location for quality development is that what has been built in the Eisenhower Avenue area to date does not convey a sense of coherent urban form, and certainly does not realize the great potential of a Metro station area.

Map 10 - Constraints

This map not yet available in online version.

Opportunities

Although the Eisenhower Avenue area is negatively affected by the constraints and influences discussed above the area also enjoys some considerable advantages and opportunities (Map 11) as a potential development area.

The area is well located near a major regional highway facility - I-95 and has great visibility to the Beltway. Improving accessibility to the Beltway would improve the attractiveness of the area for development.

The area is also located next to two Metro Stations which are only one-half mile apart. Metro stations provide an extra margin of accessibility which has attracted development around most transit stations in the Washington Metropolitan area.

In addition to Metrorail, there is the prospect that Commuter Rail can be initiated in two years and that bus service within the Valley can be greatly enhanced once the Van Dorn Station is in operation. The Eisenhower Avenue area also has the advantage of large sites under single ownership which increases the possibility of phased mixed use development.

The fact that the Cameron Run Valley is in a stream valley also presents an opportunity. A stream valley open space/ bicycle and pedestrian system can be developed in the area to link development, especially residential uses, to recreational facilities, to other developments, to the metro stations and to other parts of the city. It may even be possible to link this system via a bike trail to the Mt. Vernon Bikeway along the Potomac River.

There also may be opportunities to provide additional active recreation areas to serve new development. These areas may be appropriately located near the confluence of Hooff's Run and Mill Race and tied into the overall bikeway/pathway system.

Via the CNS project, there are also opportunities to lessen the Valley's isolation and to establish stronger connections between the Eisenhower Avenue area and the King Street Metro area, to make the Eisenhower Avenue area more a part of the fabric of the City.

Finally, because the Eisenhower Avenue area is located in a valley, removed from the established, low scale residential neighborhoods, there are opportunities to allow taller buildings without necessarily creating visual impacts to neighborhoods or City landmarks.

Allowing taller buildings in the Valley would provide views of the Potomac River and of the Old Town area which could in turn encourage quality development, especially, residential uses. Nevertheless, taller buildings need to be sensitively sited and carefully designed to avoid blocking views of landmarks such as the Masonic Temple.

Planning and Design Considerations for Development

Building upon the constraints and opportunities outlined above, this section examines a land use concept and possible design guidelines for development within the study area.

Land Use Concept

The land use concept shown in Map 12 reflects the desire to encourage a mix of office, retail, residential, and hotel development along with publicly oriented open space, recreational, entertainment and cultural facilities.

Map 11 - Opportunities

This map not yet available in online version.

The Plan follows these principles:

* that mixed use development at relatively high densities should be encouraged near the two transit stations

* that development furthest from the stations and more likely to rely on travel by auto should be more at lower densities.

* that residential development is most suitable in locations which are within a convenient walking distance to a metro station and accessible to open space and recreational facilities.

For purposes of describing the land use concept the study area is divided into two subareas; King Street Metro, Eisenhower Avenue West of Telegraph Road.

King Street Metro Station

Considering that the King Street Metro Station area is mostly built up, the concept plan primarily reflects the current pattern of development. The Plan encourages a mix of office, retail, hotel and residential uses west of Peyton Street. Because of Metro proximity, residential uses should be allowed at higher densities than other, non-Metro, locations. Ground floor retail uses are desired along King Street and Duke Street west of Holland Lane.

Map 12 - Land Use Concept

This map not yet available in online version.

West of Telegraph Road

This area is furthest from the Metro Station and is located between two major barriers, the S&I Yard and Telegraph Road. The concept plan calls for moderate density commercial office development on the south side of Eisenhower Avenue and a mix of medium density commercial office, retail and hotel uses on the Cameron Center and Foundry tracts located on the north side of Eisenhower Avenue.

Development Guidelines

The land use concept provides a generalized picture of where different land uses should be located within the study area. To further clarify this picture, however, guidelines need to be established to indicate how these land uses should be translated into three dimensional forms and how these forms should be related within the study area and to the City. These guidelines concern height, massing, building orientation, parking, open space and pedestrian movement.

Height

The setting for Valley development is a large, isolated, underdeveloped area located in a stream valley and affected by dominant, large scale elements such as railroad tracks, the Capital Beltway, Telegraph Road, the Metro aerial structure and some large office buildings. Given this setting, large scale buildings may be appropriate and can be accommodated in the area without necessarily negatively impacting other parts of the City.

To say that tall buildings may be acceptable does not mean that any tall building or complex would be appropriate. Building heights and scale need to be sensitive to three factors; the impact on the urban design of the City and the impact on proposed mixed use development in the Valley.

Shooter's Hill is the most prominent natural feature and the George Washington Masonic Temple is the most prominent landmark and important point of orientation in the eastern part of the City. The Temple, sited on Shooter's Hill at a 120 foot elevation, reaches a height of 450 feet and can be seen from almost anywhere within the downtown area and from within the Cameron Valley.

The Cameron Valley is generally at an elevation of 20 to 30 feet. The tallest buildings within the Valley, the Hoffman Buildings, are approximately 160 feet. From a distance, these buildings do not visually block any portion of the Masonic Temple or project beyond the horizon created by Shooter's Hill. In terms of height, buildings in the eastern Cameron Valley ranging up to perhaps 200 feet can be constructed without unduly blocking views of most of the Temple structure.

Very tall buildings, especially if massed together, can effect block views of the Temple and have such a dominant visual effect that they begin to compete with and detract from vistas of the Temple and Shooter's Hill. While a single tower may be fine, if taller buildings are also massive or if taller buildings are clustered together, the result might be more like Crystal City or Rosslyn. Alexandrians will need to determine whether that kind of development conveys an image of

Alexandria they like.

The impact on Shooter's Hill is illustrated in Map 13 which is a section of the area looking east showing the relationship between the Masonic Temple, existing Hoffman Buildings, and possible 345 foot buildings located on the Hoffman property. As shown, the large buildings overwhelm the Temple in terms of scale and height and mass. One way to at least mitigate the visual impact of tall buildings on the Temple is to gradually reduce building mass on the upper portions of a building tower.

Not all tall buildings are necessarily inappropriate. Taller buildings can be located and designed to enhance or reinforce views of the Masonic Temple. Taller buildings may be needed to create a landmark and identity for a project. Nevertheless, the impact of tall buildings on the Masonic Temple should be a basic consideration for evaluating the appropriateness of buildings above 150 feet within the eastern portion of the Valley.

The King Street Metro Station Area Height District adopted the principle that there should be a height transition between established, lower scale neighborhoods and commercial development areas. This principle should be applied to the CNS site. Taller buildings should be oriented away from Duke Street, towards the interior and southern portion of the site.

Building heights need to be arranged to create variety; more importantly they need to create a hierarchy which emphasizes landmarks and vistas, provides transitions between buildings and their functions and which differentiates between areas of development.

Parking Location

The King Street Station Area Parking District requires that 75% of the parking in the area be structured unless a special use permit is obtained, and prohibits parking from fronting a street.

The principle that parking should be buried or screened should be generally applied to the entire study area. It is understood that due to soil conditions and expense not all parking can be placed underground. However, surface parking should be minimized; above grade parking should be located in block interiors screened from public view. In no cases should parking structures or large areas of surface parking front a street. Where possible, larger parking structures should abut physical barriers such as the Beltway, railroad tracks and Telegraph Road, locations which are removed from pedestrian activity.

Open Space/Streetscaping

Development should use and improve the stream valley system found in the eastern portion of the Valley. Cameron and Hooff's Run provide a natural basis for a greenway system. At the western end of the study area, a portion of the land adjacent to Cameron Run should be used as a green way system to provide an upgraded connection to park facilities further west.

In light of the potential impact of Valley development on the City's recreational facilities, the City should consider whether additional land within the Valley should be designated for acquisition. The anticipated level of development in the Eisenhower area will put tremendous demand on recreational facilities and there are limited opportunities for land acquisition elsewhere in the City.

Part of any open space system in an urban area is streets. To complement the stream valley concept, the eastern portion of the Valley needs a system of streets and a strong streetscaping program. The focal point for streetscaping should be Eisenhower Avenue. This Avenue should be developed as an urban boulevard with a treed median and planting areas. Streetscape standards and development controls should be developed regarding setbacks and building orientation to ensure consistent and continuous development pattern along the Eisenhower Avenue.

Map 13 - Height Impacts

This map not yet available in online version.

Pedestrian System

Development within the study area should be pedestrian oriented and should allow a safe and convenient walk to each of the Metro Stations and to the various development projects within the study area.

Especially in the King Street Metro Area, which is near downtown, near existing neighborhoods and near transit, special care should be given to the needs of pedestrians. Intersections should be designed to prohibit continuous, unimpeded right turn movements at intersections. These free right turns make it difficult for pedestrians to safely cross streets in the area.

One way to redress the problem of continuous right turns is to redesign intersections such as at King/Diagonal and Duke/Holland so that right turning traffic has to stop at the intersection with the traffic light to allow pedestrians to cross. Stop sights or red right turn signals could also be used. This latter type of signal control will be employed for the Duke Street/Henry Street intersection and the Holland Lane/Duke Street intersection.

In addition to intersection redesign, other improvements are needed to make transit facilities more accessible to pedestrians with fewer conflicts with cars.

One improvement which should be implemented is to extend the pedestrian tunnel from the Amtrak Station to the Metro Station mezzanine area (Map 14). This connection was recommended in the 1978 King Street Metro Station Area Plan and was planned as part of the Metro Station design. The tunnel would serve Commuter Rail passengers and Rosemont residents destined to Metro.

Another improvement which should be considered is to provide a second access point to the Metro platform. The King Street Metro Station provides only a single point of access through the fare gates, up the escalators and onto the platform. This forces most transit patrons from Rosemont to have to cross King Street, and sometimes Commonwealth Avenue, to access the station.

If the King Street Metro Station platform were extended over King Street and a second set of fare gates and escalators were installed near Commonwealth Avenue, many transit users could then access the station without crossing King Street.

A third pedestrian improvement may be necessitated by the development of the Carr/Norfolk Southern site. The proposed development envisions some 19,000 workers and some 4,000 residents. To access the King Street Metro Station, pedestrians will have to cross a five lane Duke Street. Because of the potential conflicts between heavy pedestrian and vehicular movements affecting Duke Street it may be necessary to construct a tunnel underneath Duke Street to provide access to the King Street Metro Station from the CNS project. The conditions of the CNS project require that such a tunnel be built if the Director of T & ES determines that the facility is needed.

All of these improvements are desirable; however they are all likely to be expensive. WMATA estimates that the tunnel connection could cost between $.9 million and $1.7 million plus the possible cost of an elevator for handicapped accessibility. According to WMATA, each additional entrance to a transit station will require a mezzanine with farecard machines, turnstyles and a manned kiosk plus an elevator would be required for handicapped people. This may mean that providing an additional entrance to the King Street Station could cost $3 to $4 million. The pedestrian tunnel under Duke Street also will be costly, but CNS will be responsible for that improvement.

Map 14 - Proposed Pedestrian Connection

This map not yet available in online version.

PUBLIC POLICY

City land use policy has consistently focused on the King/Eisenhower area as a potential growth area where development was anticipated and was to be encouraged. It was believed that the location of the metro stations would be the key factor stimulating this development. In fact, the Eisenhower metro station was originally to be located on the Springfield/Franconia line but was relocated to its present site to realize development sooner.

Although the two metro areas were slated for growth, Council was well aware of the locational differences between the two station areas.

King Street Metro

The King Street Metro Station area was located near single family residential areas and an historic district. Development was to be encouraged but also was to be contained to protect nearby residential neighborhoods.

The Plan reflected both objectives. The plan identified the area designated for redevelopment. These boundaries excluded the area west of the railroad tracks (Rosemont) and the residential areas along Harvard and N. Peyton Street.

The Plan established a preservation area which included the area between Peyton and West streets. These streets contained a mix of low scale residential and commercial uses, some in historic buildings. The intent was to further emphasize that this area was not to be slated for redevelopment.

Within the development area the Plan delineated a transitional area where heights and densities would be moderated in consideration of maintaining a development scale compatible with the preservation area. Finally, the Plan called for more intense development nearer the Metro station.

Although the King Street station area plan encouraged development around the Metro station, the Plan recommended downzoning the properties within the designated development area. The Plan called for heights to be reduced from 150 feet to 77 feet and for the FAR for commercial development to be reduced from 6.0 to 3.0. The recommended height reduction was directly related to consideration of the impact of 150 foot buildings on the Masonic Temple and on adjacent residential neighborhoods.

The zoning actions which were enacted after Plan adoption were intended to insure that the development area not overwhelm low scale development in the surrounding neighborhoods yet still allow sufficient densities to encourage development. In fact, to further encourage development and Metro ridership, the City recommended reductions in required parking which allowed several of the larger developments to reach a 3.0 FAR. This strategy was basically accepted by the development community and by the neighborhoods.

Eisenhower Avenue Metro

Public policy regarding development and zoning around the Eisenhower Avenue station was focused on encouraging mixed use development. Because of the area's relative isolation from nearby residential areas, there was little apparent reason to constrain development envelopes or heights. Development rights in the M-3 zone, a zone specially designed for the parcels around the Eisenhower Station, included a 3.5 FAR by right with up to a 6.0 FAR with a 25% residential component in the project. The height allowance was up to 345 feet with a Special Use Permit. The M-3 zoning was applicable to most of the land situated within 1500 feet of the metro station.

Although the M-3 zoning adopted by the City allowed generous densities, the City was aware that there were constraints to development; namely, the lack of roadway connections to Cameron Valley development sites limiting the area's accessibility.

City Council, whether intended or unintended, never tailored the zoning to traffic carrying capacity. Instead, the M-3 zone was created which allowed up to 6.0 FAR with a special use permit. The City also left intact the industrial zoning and the CO zone. The industrial zoning allowed up to a 5.75 FAR with a planned unit development special use permit; the CO zone allowed up to a 4.0 FAR with a special use permit. Although these higher densities were achievable only with public review, it is important to remember that the by-right zoning in the eastern portion of the Valley allowed 26 million square feet of office development without public review.

ISSUES

The issues addressed in the King/Eisenhower Small Area Plan involve three basic questions;

* to what extent does City Council wish to use zoning to control development so that it bears a more reasonable relation to the ability of the road system to accommodate it.

* to what extent is the City willing to improve the road system to accommodate development

* to what extent does the City wish to encourage mixed use development in the Valley.

GOALS AND RECOMMENDATIONS

GOALS AND OBJECTIVES

The primary goals are:

* to create lively, mixed use office, retail, residential and hotel development supported by open space, recreational, entertainment and cultural amenities

*to ensure that adequate transportation facilities are available to support development and to minimize traffic impact to neighborhoods

*to ensure that development protects and enhances the character of the City, its landmarks and its neighborhoods

To further these goals Plan objectives are:

Land Use

*to encourage quality, high density mixed use development, King Street Metro Station

*to reduce development densities in areas where mixed use is not suitable and where sites are not within convenient walking distance of a metro station

*to strengthen and to enhance the stream valley open space and trail system within the study area and to connect this system to other parts of the City

*to create new opportunities for passive and active outdoor recreational facilities

*City owned properties should be operated in such a way as to minimize emissions of odors, dust, dirt, trash, and other noxious matter, and should present a clean and neat exterior appearance.

*When City owned properties are made available for reuse, give consideration to using th for park.

Development/Design

*to encourage a system of streets and blocks which provides an urban framework for area development

*to establish an urban design character for Eisenhower Avenue as a major urban boulevard

*to encourage a variety of building heights in the development area compatible with City landmarks and vistas

Transportation

*to make the levels and pace of development contingent upon the availability of transportation facilities to accommodate additional traffic or upon stringent TMP measures to reduce single occupant vehicles

*to improve access to the Valley by providing new road connections from I-95

*to improve transit facilities serving the area

*to reduce Single Occupant Vehicle use through rigorous Transportation Management Plans in conjunction with development within the study area

*to provide safe, convenient pedestrian bicycle access to Metro

*Streets should be people-friendly, with usable pedestrian and bicycle paths the length of Eisenhower Avenue, and human scale signage, lighting and street furniture.

*Public transit should continue to be emphasized, linkages should be provided to transit opportunities from the major development projects.

LAND USE RECOMMENDATIONS

The intent of the land use recommendations is to update the Master Plan and, more specifically, to amend the Adopted Long Range Land Use Map.

The current land use plan for the King Street/Eisenhower Avenue area is shown on Map 15. The proposed land use plan is shown on Map 16. Map 17 indicates the proposed changes to the land use plan.

The existing land use plan is derived from the Adopted 1974 Comprehensive Plan and the Adopted 1978 King Street Station Area Plan. The latter document recommended a higher density, mixed use development area closest to the Metro station, a transitional mixed use development area to buffer adjacent lower scale commercial and residential areas, a preservation area within the Old and Historic Alexandria District and a commercial development area on the south side of Duke Street.

For the Valley subarea, the 1974 Plan called for industrial use of what is now the CNS site, commercial uses for the Hooff's Run area and mixed use for the areas adjacent to the Eisenhower Avenue Metro Station and west of Telegraph Road.

The major proposed change to the current land use plan is to phase out most of the industrial use called for in the 1974 Plan, and to replace it with higher density mixed use development and moderate density office. Because of its accessibility to highway and transit, the area is more appropriate for higher densities of mixed office and residential development.

The proposed land use plan is based on the principle that a mixed use approach is essential to provide a balanced and efficient use of transportation resources, to help mitigate traffic impacts caused by office development and to create a vibrant development area in the Cameron Run Valley.

The list of proposed land use changes is as follows:

1. From Mixed Use to Utility/Transportation
This site includes the Metro Service and Inspection Yard and a Metro building on Mill Road housing administrative offices and training facilities.

2. From Mixed Use to Park
This is Cameron Run which is not suitable for development and which should be recognized as part of the stream valley open space system within the City.

3. From Mixed Use to Coordinated Development District (CDD)
These sites include the Cameron Center and the Foundry Site which combined totals 30 acres.

Although these sites are not within convenient walking distance to the Eisenhower Avenue Metro Station, and are impacted by proximity to Telegraph Road to the east, railroad tracks to the north and by the Metro Service and Inspection Yard to the West, there is sufficient land available to create an environment suitable for coordinated mixed use development, including residential and hotel uses.

3a. From Mixed Use to Office Commercial Medium - 100
This is the Alexandria Tech Center which is being developed for low scale office uses at moderate densities within an office park setting.

4. From No Designation and Mixed Use to Utilitv/Transportation
This is the Telegraph Road right of way including ramps and lands encompassed and adjacent to the ramp system.

5. From No Designation to Utilitv/Transportation This is the Virginia Power Substation.

6. From Industrial to Utilitv/Transportation
This property includes the Metro and the Norfolk Southern tracks.

7. From Mixed Use to Utility Transportation
This is the Eisenhower Avenue Metro Station.

8. From Commercial to Park
This land consists of Mill Race which is owned by the City up to Hooff's Run Drive. This site should be designated as park and improved as part of the Cameron Run valley open space system.

9. From Commercial to Office Commercial Medium-100
This area includes the properties located on the south side of Duke Street between Holland Lane and West Street. The intent of the OCM designation is to create a transition from higher density office/commercial development (OCH) to the west to lower density commercial development (OC) to the east.

10. From "Preservation Area" to Commercial Downtown
This area includes a mix of mostly commercial uses with some residential uses along West Street, Prince and Commerce Street and is protected by the Old and Historic Alexandria District. The CD designation allows a mix of uses and is designed for the mostly built up historic area of the City.

11. From Transitional Mixed Use to Office Commercial High
In the King Street Station Area Plan, this area was designated to provide a transition between the higher scale buildings across from the Metro Station and the lower scale residential and commercial buildings towards Old Town and towards the Harvard and North Peyton Street residences. Most of this area has been developed or is in the process of full site development. For the most part, the scale transition has been achieved.

The OCH designation recognizes the commercial office development which has occurred since

the 1978 Plan and the proximity of the area to the Metro station. The OCH designation as applied to the zoning of this area should include a requirement for retail uses along the King Street corridor in conjunction with higher density development or redevelopment. High density residential is also an acceptable use in this area.

12. From Transitional Mixed Use to Park

This is the "gateway property" located between Daingerfield Road, King Street and Diagonal Road. The City is in the process of completing the acquisition of this property for a park.

13. From Mixed Use to Office Commercial High

This area is a triangle formed by Diagonal Road, Daingerfield Road and Duke Street. The western portion of the area contains the King Street Station Project and is in the process of building out at a high density with a mix of office, retail and hotel uses. Development on the remainder of the area is at a lower scale and is more fragmented. The OCH designation is appropriate for sites within close proximity of the transit station.

14. From Mixed Use and No Designation to Utility/ Transportation

This area includes the Metro Station, the Metro parking area, the Amtrak station and parking lot, the RF&P railroad tracks and other vacant land east of Callahan Drive.

15. From Commercial to Utilitv/Transportation

This is a piece of railroad trackage and the Metro substation which are appropriately designated U/T.

16. From OCM-100 to OCM-50

ZONING RECOMMENDATIONS

The zoning recommendations are intended to implement the proposed land use plan. Existing zoning is shown on Map 18 . The proposed zoning is shown on Map 19. The proposed zoning changes are shown on Map 20.

Rationale

Current zoning in the study area is heavily biased toward high density office development and allows by right some 26 million square feet of office use. Market and transportation analyses, prepared for the City, clearly show that this amount of office development far exceeds what the market could absorb within the entire City for several decades and far exceeds the 8 to 10 million square feet of office that could be supported by even a vastly improved road system.

Office developments generate intense rush hour traffic in a peak direction, place enormous pressure on existing road systems and cause inefficient use of transportation resources and dollars. Metro oriented mixed use development, however, reduces overall peak travel demand, results in more balanced directional use of streets and more efficient use of highway and transit facilities. Mixed use also creates the opportunity for quality development, for lively urban environments and for living close to work and to shopping.

For these reasons, the proposed zoning provides incentives for mixed use development near transit and limits densities for strictly commercial developments particularly on sites relatively distant from a transit station.

The proposed zoning creates a Coordinated Development District zone to include the Cameron Center/Foundry site. The zones is structured to limit by right development levels and building heights and to allow density and height incentives with mixed use development under a discretionary review process. Each CDD is guided by a set of land use and design principles, conformance to which becomes a prerequisite to development approval under the discretionary review process. Owners with parcels zoned CDD do have the right to proceed with development of their sites under the lower by-right provisions contained in the CDD zone, if they wish.

The discretionary review process under the CDD zone would require the applicant to obtain concept approval for all or a portion of the CDD zoned area. Development could then proceed in accordance with the approved concept plan as a single or multi-year phased project.

This procedure allows the City to fully evaluate the implications of possible buildout of a large development site. It allows the developer of a large site to obtain City approval at a concept level before large sums of money are needed to be expended on detailed plans for an entire project. By setting forth City objectives and design guidelines for each CDD, a developer can better gauge, upfront, what is needed to obtain City approval.

For the King Street Metro subarea, the new zone, OCH, would allow office development up to

a 2.0 FAR but would require discretionary review to exceed this density up to a 3.0 FAR. The intent is to ensure that higher density developments conform to specific land use goals contained in the Plan for retail uses along designated streets and for residential uses as part of a mixed use project.

For smaller parcels, less than 15,000 sq. ft. as currently subdivided, all or a portion of which are within 1,000 feet of the King Street Metro Station and where the retail uses are not specifically called for in the plan, a 3.0 FAR should be allowed by right.

Proposed Zoning Changes

The zoning changes are listed below. An explanation of the specific recommendations for those properties designated CDD, including by right zoning and development and design guidelines, follows the list.

1. From I-2 Industrial to U/T Utilitv/Transportation
This is the Metro Service and Inspection Yard at Eisenhower Avenue and Bluestone Road, the Metro Administrative/Training building on Mill Road and the RF&P railroad tracks.

2. From CO Commercial to U/T Utility/Transportation
This area includes a railroad trackage and a piece of the S&I Yards.

3. From I-2 industrial to Park
These sites are part of Cameron Run.

4. From CO Commercial to Park
This site is part of Cameron Run.

5. From CO to Office Commercial Medium - 100
This is the Alexandria Tech Center Property which has been developed largely for low scale office use.

6. From CO Commercial to Coordinated Development District (COD)
This site includes the Cameron Center and Foundry properties and is recommended for a Coordinated Development District to encourage planned mixed use development. The intent is to limit the amount of office by right and to allow additional densities only with mixed use development subject to design guidelines.

7. From 1-2 Industrial to U/T Utilitv/Transportation
This is the Telegraph Road Interchange and Virginia Power substation.

12. From I-1 to Coordinated Development District (CDD)
This is the Lindsey site which should be developed as part of a coordinated development plan.

13. From M-3 Commercial to U/T Utility/Transportation
This is the Eisenhower Avenue Metro Station.

14. From C-2 Commercial to U/T Utility Transportation
This is a sliver of land owned by Metro and located next to the Eisenhower Avenue Metro Station.

19. From I-2 Industrial to Park
This zoning change pertains only to those portions of Mill Race owned by the City.

25. From C-3 Commercial to Park
This is the "gateway" park site which the City will be acquiring for park use.

26. From C-3-Commercial to OCH Office Commercial High
This area includes all of the C-3 zoned parcels in the King Street Metro Station area west of Peyton Street. The Office Commercial High zone would allow a variety of commercial and residential uses. The FAR proposed is 2.0 with up to 3.0 with a Special Use Permit. The Special Use Permit requirement allows the City the ability to encourage ground floor retail, especially along King Street. High residential densities are also appropriate and to be encouraged.

27. From I-1 Industrial to OCM Office Commercial Medium-100
This area is located on the south side of Duke Street between Holland Lane and West Street. The intent is to create a transition in building densities between the Metro Station area and the Old Town area further east and north.

28. From I-2 Industrial to OCM Office Commercial Medium-100
This area includes non-operating railroad owned property located between properties fronting Duke Street and the Norfolk/Southern Corporation railroad tracks.

29. From C-3 Commercial to CD Commercial Downtown
This area includes all C-3 zoned parcels between Peyton Street and West Street. The CD zone is designed for the Old and Historic Alexandria District and Central Business districts and is similar to the C-3 zone.

30. From I-1 Industrial to U/T Utility/Transportation
This is the King Street Metro Station, parking lot and substation.

31. From R-5 Residential to U/T Utilitv/Transportation
This is the RF& P owned Amtrak Station, parking lot, rail trackage and other vacant land east of Callahan Drive.

32. From 1-1 Industrial to U/T Utility/Transportation
This is a metro sub-station and trackage.

33. From OCM-100 to OCM-50

34. From CDD-1 to CDD-2 Eisenhower Avenue Coordinated Development District

COORDINATED DEVELOPMENT DISTRICT ZONE AND DEVELOPMENT GUIDELINES

The proposed CDD zone is structured to allow limited levels of development as a matter of right using conventional zones or to allow greater levels of development for projects which undergo a discretionary review process. The main considerations for development approval under the CDD procedures are conformance to the Small Area Plan, conformance to the use and design guidelines approved for the specific Coordinated Development District and conformance to the Concept Plan proposed by the developer and approved by the City.

Duke Street Coordinated Development District

Development without a Special Use Permit

Within the designated CDD area, the OC Office Commercial zone regulations shall apply, provided that the maximum permitted Floor Area Ratio without a Special Use Permit shall not exceed 1.25 within a distance of 1000 linear feet of the King Street Metro Station as measured from the station kiosk; the Floor Area Ratio without a Special Use Permit for that portion of the Eisenhower Avenue CDD outside of 1000 linear feet from the King Street Metro Station shall be 1.0 provided that the maximum height without a Special Use Permit for all property within the Duke Street Coordinated District shall not exceed 77 feet.

Optional CDD Development with a CDD Special Use Permit
Coordinated development shall occur subject to the following guidelines:

Land Use
1. that the project provides a mix of uses to include office, retail, residential, hotel and support facilities including active and passive recreation and day care centers.

2 . that commercial office uses with a strong retail concentration be located along Duke Street opposite the King Street Station project.

3. that the property on the southwest comer of Duke and Holland Lane be developed for office use with first and possibly second floor retail and restaurant uses along Duke Street and Holland Lane.

4. that Hooff's Run be developed and upgraded as a park facility.

5. that the Black Cemetery be restored and preserved.

6. that residential uses contain a mix of housing to include townhouses, mid-rise and hi-rise apartments.

7. that any properties not included in the Carr/Norfolk Southern project be developed in a manner consistent and compatible with the urban design guidelines for the CNS project.

8. the project shall provide adequate active and passive recreational facilities.

9. the project shall appropriately provide for bicycle lanes and trails in coordination with existing bicycle trails and facilities.

Density

10. that the maximum floor area ratio with a CDD special use permit not exceed 2.62.

Design

11. that the area provide a variety of building types and architectural expressions which reinforce a pedestrian environment.

12. that there be safe and convenient pedestrian access to the King Street Metro Station across Duke Street and to the Eisenhower Avenue Metro Station.

13. that parking be placed underground where feasible; that all above grade parking be screened from view from primary streets or located on sites removed from pedestrian activity.

14. that heights in the blocks adjacent to Duke Street be limited to 77 feet (82 feet with ground floor commercial); that other heights be limited to 200 feet, provided that the average height shall not exceed 150 feet. The Federal Courthouse will be considered at heights of up to 250'.

Cameron Center Coordinated Development District

Development without a Special Use Permit

Within the designated CDD area, the OC Office Commercial zone regulations shall apply, provided that the maximum Floor Area Ratio permitted without a Special Use Permit shall be 1.5 with a height limitation of up to 100 feet.

Optional Development Under CDD

Coordinated development shall occur subject to the following guidelines:

1. that there be a mix of uses in the area including office, retail and either residential or a hotel.

2. that building height with a Special Use Permit not exceed 200 feet with a maximum average of 150 feet.

3. that the Floor Area Ratio with a Special Use Permit not exceed 2.5.

4. that above grade parking structures should be located nearest railroad trackage or other physical barriers and screened from view from the public right-of-way.

5. that buildings along Eisenhower Avenue conform to the setback and design standards established for this street.

6. the project shall provide adequate active and passive recreational facilities.

7. the project shall appropriately proved for bicycle lanes and trails in coordination with existing bicycle trails and facilities.

HEIGHT RECOMMENDATIONS

As shown on Map 22 existing by right height allowances in the study area are generally 77 feet or 150 feet. In the King Street Station Height District, heights up to 82 feet are allowed if first floor retail uses are provided. Properties zoned CO and M-3 can construct buildings up to 150 feet by right. The proposed building heights are shown on Map 23. The major points are as follows:

*The King Street Height District, with its 77 foot height limit, would be maintained and would still allow up to 82 feet with first floor retail.

*Heights along King Street would be limited to 50 feet; additional height must be set back from the street wall, subject to site plan review.
* Heights east of Peyton Street and in the Old and Historic Alexandria District would be limited to 50 feet.

*Building heights of up to 150 feet are generally acceptable in the Cameron Run Valley portion of the study area, except for buildings fronting Eisenhower Avenue. Building heights above 150 feet need to be scrutinized (through the Special Use Permit Process) to determine their relationship to the George Washington Masonic Memorial and other buildings nearby.

*Heights within the Duke Street Coordinated Development District would be allowed up to 200 feet with 250 feet for the Federal Courthouse, subject to the other height restrictions stated in the Plan and to CDD review.

*Heights for the properties east of South Peyton Street (extended) along the south side of Duke Street to South West Street (1400-1454 Duke Street and 301 West Street) will conform to the OCM-50 land use.

TRANSPORTATION RECOMMENDATIONS (MAP 24)

That the following road improvements be built:

1. Eastbound Beltway Flyover Ramp

2. Collector/distributor road to connect to Mill Road

3. Clermont Interchange

4. Widen Holland Lane

5. Eisenhower Avenue widening between Telegraph and Mill Roads

6. Wolfe Street/Daingerfield Road construction.

7. Mill Road straightening east of Telegraph road and extension west of Telegraph Road

Other Recommendations

8. that the City endorse and encourage the establishment of a Transportation Management Association (TMA) in the King Street/Eisenhower Avenue area, to provide a coordinated single-occupant-vehicle demand reduction program.

9. that a Transportation Improvement District be established in the Eisenhower Avenue area to finance planned and proposed transportation system improvements.

10. that all right hand turns in the King Street Metro Area, particularly at the King Street/Daingerfield/Diagonal intersection and at the Duke Street/Holland Lane intersection be designed to control vehicular traffic, either through a stop sign or traffic signal, to allow safe pedestrian movement within the area.

11. that the Departments of Planning and Transportation work with the Department of Parks and Recreation and its board to develop on open space, recreation and bikeway system for the King Street/Eisenhower Avenue area and to develop a streetscape plan for Eisenhower Avenue.

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Map 15
Map 16
Map 17
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Map 18
Map 19
Map 20
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Map 22
Map 23
Map 24b